

BUCKET OBSERVATIONS OF SEA-SURFACE TEMPERATURES

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STRAITS OF FLORIDA AND CARIBBEAN SEA

The temperatures herein published are the means of the average temperatures for the four quarters of the month, except that, in the case of the 5° subdivisions of the Caribbean Sea, the figures shown are the simple means of the observed temperatures with the entire month taken as a unit. Table 1 shows the lengths of the quarters for each length of month.

Table 2 shows the average temperature for the Caribbean Sea and the Straits of Florida for April of each year from 1919 to 1930, inclusive, and Table 3 summarizes the temperature for the month in the same areas, including the departures of the April, 1930, means from the 11-year means for April (1920-1930), and the changes from the temperatures for the preceding month of March, 1930.

The chart shows the number of observations taken during the month of April, 1930, within each 1° square; the mean temperature of the Straits of Florida, and of each 5°¹ subdivision of the Caribbean Sea; the 11-year means (1920-1930) for these areas; and the local mean time corresponding to Greenwich mean noon, at which time the mariners are instructed to make the temperature readings.

During April, temperatures in both the Straits of Florida and the Caribbean Sea continue to possess distinctly cool-season values, the April 11-year means for both areas being intermediate between those for December and January. The trend is, however, distinctly upward, and the last quarter of April is approximately 1° warmer than the same quarter of March in the Caribbean Sea. In the Straits of Florida the temperature difference is nearly 2°.

The surface water was slightly cooler than the 11-year average during the first half of April, 1930 in the Straits of Florida. In the Caribbean Sea, the northwestern portion was somewhat cooler than the average, while the temperature departures were positive over the remainder of the sea with the exception of the eastern extremity, where available data give evidence of cooler water than in March. For the Caribbean as a whole, the departures were small throughout the month.

¹ In 3 cases, as indicated on the chart, the observations from small, little traveled, and unimportant areas at the outer limits of the Caribbean Sea have been treated as parts of contiguous 5° subdivisions.

TABLE 1.—Lengths of "Quarter-months" used in computing mean sea-surface temperatures

Length of month	Days of month included in quarter			
	I	II	III	IV
28 days.....	1-7	8-14	15-21	22-28
29 days.....	1-7	8-14	15-21	22-29
30 days.....	1-7	8-15	16-22	23-30
31 days.....	1-7	8-15	16-23	24-31

TABLE 2.—Mean sea-surface temperatures in the Caribbean Sea and the Straits of Florida for April (1919-1930)

Year	Caribbean Sea		Straits of Florida	
	Number of observations	Mean temperature	Number of observations	Mean temperature
1919 ¹	43	79.1	14	75.9
1920.....	155	79.3	34	76.8
1921.....	179	78.4	46	76.9
1922.....	194	78.5	74	77.2
1923.....	339	78.8	109	77.6
1924.....	342	79.6	109	76.4
1925.....	251	79.6	101	76.5
1926.....	302	80.1	110	76.8
1927.....	313	80.0	128	77.2
1928.....	435	79.6	152	76.2
1929.....	495	79.4	126	78.0
1930.....	580	79.4	127	76.5
Mean (1920-1930).....		79.3		76.9

¹ Not used in computations because of insufficient data.

TABLE 3.—Mean sea-surface temperatures and number of observations, April, 1930

Quarter	Period	Caribbean Sea				Straits of Florida			
		Number of observations	Mean	Departure from 11-year mean (1920-1930)	Change from preceding month	Number of observations	Mean	Departure from 11-year mean (1920-1930)	Change from preceding month
I.....	Apr. 1 to 7.	125	79.3	° F.	° F.	33	75.5	° F.	° F.
II.....	Apr. 8 to 15.	146	79.1	° F.	° F.	36	76.1	° F.	° F.
III.....	Apr. 16 to 22.	140	79.4	° F.	° F.	37	76.8	° F.	° F.
IV.....	Apr. 23 to 30.	169	79.8	° F.	° F.	21	77.6	° F.	° F.
Month.....		580	79.4	+0.1	+0.5	127	76.5	-0.4	+0.7

Distribution of Greenwich Mean Noon Bucket Observations of Sea-Surface Temperatures, April, 1930

(Plotted by Giles Slocum)

